

DETECTING DRIVING WITH A WEARABLE COMPUTING DEVICE

BACKGROUND

Some mobile devices (e.g., wearable computing devices, mobile phones, tablet computing devices, vehicle entertainment or navigation systems, etc.) provide a variety of functions that a user may wish to access while traveling in a vehicle. User interaction with certain functions of a mobile device may be unsafe and/or unlawful when a user of the mobile device is simultaneously operating a vehicle. To promote safe and/or lawful interaction with the mobile device, some mobile devices enable and/or disable certain functions responsive to the mobile device detecting that the mobile device is located in a moving vehicle. As such, even if a user of the mobile device is merely a passenger in the moving vehicle (and thus is not actually operating or driving the vehicle), the mobile device may unnecessarily prevent the user from safely and lawfully accessing one or more functions of the mobile device.

SUMMARY

In one example, the disclosure is directed to a method that includes detecting that a wearable computing device is located within a moving vehicle, detecting, by the wearable computing device, an indication of movement associated with the wearable computing device, and determining, based at least in part on the indication of movement, that a user of the wearable computing device is currently driving the moving vehicle. The method further includes performing, based on the determination that the user of the wearable computing device is currently driving the moving vehicle, an operation.

In another example, the disclosure is directed to a wearable computing device that includes at least one processor and at least one module operable by the at least one processor to detect that the wearable computing device is located within a moving vehicle, detect an indication of movement associated with the wearable computing device and determine, based at least in part on the indication of movement, that a user of the wearable computing device is currently driving the moving vehicle. The at least one module is further operable by the at least one processor to perform, based on the determination that the user of the wearable computing device is currently driving the moving vehicle, an operation.

In another example, the disclosure is directed to a method that includes receiving, by a computing system, from a wearable computing device, information that includes one or more indications of movement associated with the wearable computing device and at least one indication that the wearable computing device is located within a moving vehicle, and determining, by the computing system, based at least in part on the one or more indications of movement and the at least one indication that the wearable computing device is located within the moving vehicle, a probability that a user of the wearable computing device is performing an act of driving. The method further includes responsive to determining that the probability satisfies a probability threshold, determining, by the computing system, that the user of the wearable computing device is currently driving the moving vehicle, and outputting, by the computing system, for transmission to at least one of the wearable computing device or at least one second computing device, information that configures the at least one of the wearable computing device or the at least one second device to perform an operation.

The details of one or more examples are set forth in the accompanying drawings and the description below. Other features, objects, and advantages of the disclosure will be apparent from the description and drawings, and from the claims.

BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is a conceptual diagram illustrating an example computing system configured to determine whether a user of a wearable computing device is driving a moving vehicle, in accordance with one or more aspects of the present disclosure.

FIG. 2 is a block diagram illustrating an example wearable device configured to determine whether a user of the wearable computing device is driving a moving vehicle, in accordance with one or more aspects of the present disclosure.

FIG. 3 is a block diagram illustrating an example computing device that outputs graphical content for display at a remote device, in accordance with one or more techniques of the present disclosure.

FIG. 4 is a flowchart illustrating example operations of an example wearable computing device configured to determine whether a user of the wearable computing device is driving a moving vehicle, in accordance with one or more aspects of the present disclosure.

FIG. 5 is a flowchart illustrating example operations of an example computing system configured to determine whether a user of a wearable computing device is driving a moving vehicle, in accordance with one or more aspects of the present disclosure.

DETAILED DESCRIPTION

In general, techniques of this disclosure may enable a wearable computing device (e.g., a computerized watch, computerized eyewear, etc.) to perform an operation based on a determination that a user of the wearable computing device (e.g., a person wearing the wearable computing device) is driving a moving vehicle. When the wearable computing device is located at, on, or within the transportation moving vehicle (e.g., at or near a location of the transportation vehicle, within range of a wireless communication signal of the transportation vehicle, etc.) an inference may be made that the user of the wearable computing device is riding in the transportation vehicle. Based on an indication of movement detected by the wearable computing device, a determination can be made as to whether the person riding in the moving vehicle is driving the moving vehicle (e.g., by performing an act of driving such as turning a steering wheel, moving a gear shift, etc.). The wearable computing device and/or other computing devices (e.g., a server device, a mobile phone, etc.) may accordingly perform one or more operations (e.g., enabling and/or disabling a function, feature, and/or component of the wearable computing device, outputting information from the wearable computing device, etc.) if the determination is made that the person is performing driving the moving vehicle (and not merely riding in the transportation vehicle).

Unlike some mobile computing devices that may enable and/or disable certain features of a device whenever a user is riding in a transportation vehicle, a wearable computing device or other computing devices in accordance with techniques of this disclosure may perform certain operations responsive to first determining whether a user of the wearable computing device is actually driving the transportation vehicle, and not merely a passenger riding in the transporta-